## COMMISSIONERS

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## ARIZONA CORPORATION COMMISSION

June 1, 2005

Re: Proposed Environmental Portfolio Standard Rule Amendment Docket No. E-00000C-05-0030

Dear Parties to the Docket:

In preparation for the Commission's meeting on this subject that is scheduled for June 2, 2005, I am writing to identify some principals upon which my specific comments on the proposed Environmental Portfolio Standard (EPS) rule amendments will be based.

- 1. There are good reasons why the Commission should encourage the development of diverse domestic energy sources, including environmental quality, job growth, and very importantly, economics.
- If we are going to increase the EPS surcharge, we must first have a complete
  and clear understanding of the economic impact that increasing this subsidy
  will have on the people who will be paying for it, and we must ensure that any
  surcharge increase will go for benefits to the ratepayers that will outlive the
  subsidy.
- 3. Arizona's current energy mix, while overly reliant on natural gas, is in other respects diverse, with coal, nuclear, and hydroelectric meeting about 22%, 16% and 11% of our needs, respectively. Under Arizona's current EPS, we are also seeing the development of pilot projects involving diverse renewable energy technologies, including large-scale photovoltaics (PV), multi-axis PV, solar concentration, solar thermal, landfill gas and biomass.
- 4. Arizona has excess energy. Information presented in the Commission's most recent Summer Preparedness meeting, for example, indicates that Arizona's electric utilities have excess power through about 2010, including some 2,000MW in the West Valley that is not being used. In short, there is no imminent emergency.

5. Energy cost by source. According to one company's estimates levelized busbar costs (\$/kWh) for various energy sources are:

Solar Photo-Voltaic	\$.373
Small Hydro	.247
Solar Thermal	.202
Natural Gas Combustion Turbine	.104
Bio-Landfill	.099
Wind	.086
Bio-Woodchip	.073
Natural Gas Combined Cycle	.066
Integrated Gasification CC	.061
Coal	.056
Geothermal	.048
Nuclear	043

Infrastructure and maintenance costs are already in rate base.

- 6. Solar is a multi-billion dollar world-wide industry. As such, its future does not depend on the extent to which it is subsidized in Arizona, despite the frequently suggested rationale that "we *must* invest in solar energy because it is Arizona's most abundant renewable energy resource."
- 7. There are many new energy technologies that have the potential to increase Arizona's energy diversity. These include emerging solar technologies (thin-film PV, titanium dioxide nanostructured solar cells, "hot electron" solar cells, 2-3 junction solar cells and III-V technology), integrated gasification combined cycle (IGCC), co-fired coal, dry-rock geothermal, new nuclear, and real-time metering technology.
- 8. Current solar PV, the most expensive source of renewable energy, is an obsolete, 30-year-old, "first generation" technology. It would be unwise business practice to mandate long-term investments in solar electric generation before the efficiencies of emerging solar technologies can be evaluated.
- 9. It is widely appreciated in many corners of industry that subsidies are rarely, if ever, terminated after they are established. Staff's proposal would create almost a \$5 billion subsidy, which is comparable to often cited oil industry subsidies. Accordingly, I reiterate my concern that we be very cautious to ensure that benefits accruing from any increase in the EPS surcharge must outlive the subsidy.

Sincerely,

Mike Gleason Commissioner

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